DO MONKEYS TALK?

Experiments Which Indicate that They Have Articulate Speech.

THEIR SOUNDS INTERPRETED.

They Use Their Lips Very Much as Men Do, but Only Talk When Necessary—A Scientist Who Has Studied Their Language with Success—An Important Discovery Made by R. L. Garner.

NEW YORK, June 8.—The *Herald* publishes the following: In coming before the world with a new theory I am aware that it may have to undergo many repairs and be modified by many new ideas.

On entering the world of science it begins its "struggle for life," and under the law of "the survival of the fittist" its fate must be decided. I am aware that it is heresy to doubt the dogmas of science as well as of some religious sects, but sustained by proofs too strong to be ignored I am willing to incur the ridicule of the wise and the sneer of bigots and assert that "articulate speech" prevails among the lower primates and that their speech contains the rudiments from which the tongues of mankind could easily develop, and to me it seems quite possible to find proofs to show that such is the origin of human speech.

THEIR SOUNDS HAVE MEANINGS.

I have long believed that each sound uttered by an animal had a meaning which any other animal of the same kind would interpret at once. Animals soon learn to interpret certain words of man and to obey them, but never try to repeat them. When they reply to man it is always in their own peculiar speech.

Some seven years ago, in the Cincinnati Zoological Garden, I was deeply impressed by the conduct of a number of monkeys caged with a savage ribnosed mandril, which they seemed to fear very much. The cage was divided by a wall through which was a small doorway leading from the inner to an outer compartment, in which was a tall upright, supporting a platform at its top.

Every movement of this mandril seemed to be closely watched by the monkeys that could see him and instantly reported to those in the other compartment.

IT WAS A GREAT TASK.

The conduct of these monkeys so confirmed my belief and inspired me with new hopes and new zeal that I believed "the key to the secret chamber" was within my grasp. I regarded the task of learning the monkey tongue as very much the same as learning that of a strange race of mankind; more difficult in the degree of its inferiority, but less in volume.

I went to Washington and called upon Dr. Frank Baker, director of the National Zoological Garden, and proposed the novel experiment of acting as interpreter between two monkeys. Of course he laughed, but not in derision or in doubt, for scientific men are always credulous and believe all they are told. I then explained to him how it was possible and he quite agreed with me. We set the time and prepared for the work. The plan was quite simple.

THE PHONOGRAPH.

We separated two monkeys which had been caged together, and placed them in separate rooms. I then arranged a phonograph near the cage of the female and caused her to utter a few sounds, which were recorded on the cylinder. The machine was then placed near the cage containing the male, and the record repeated to him and his conduct closely studied. The surprise and perplexity of the male was evident.

He traced the sounds to the horn from which they came, and failing to find his mate, he thrust his hand and arm into the horn quite up to his shoulder, withdrew it, and peeped into the horn again and again. He would then retreat and again cautiously approach the horn, which he examined with evident interest.

The expressions of his face were indeed a study. Having satisfied myself that he recognized the sounds as those of his mate, I next proceeded to record some of his efforts, but my success was not fully up to my hopes. Yet I had secured from him enough to win the attention of his mate, and elicit from her some signs of recognition.

And thus, for the first time in the history of philology, the simian tongue was reduced to record. My belief was now confirmed, and the faith of others strengthened. I noted some of the defects in my experiment, and provided against them for the future.

Some weeks later, in the Chicago Zoological Garden, I made some splendid phonographic records; and thence I went to the Cincinnati Garden, where I secured, among others, a fine, distinct record of the two chimpanzees, all of which I brought home with me for study.

SUCCESS AS A LINGUIST.

I placed them on the machine and repeated them over and over, until I became quite familiar with the sounds and improved myself very much in my efforts to utter them. I returned to Cincinnati and Chicago some weeks later and tried my skill as a linguist with a degree of success far beyond my wildest hopes.

Having described to some friends who were with me the word I would use, I stood for a while with my side turned to the cage containing a capuchin monkey (*Cebus capucinus*). I uttered the wyrd or sound which I had translated "milk."

My first effort caught his ear and caused him to turn and look at me. On repeating it some three or four times he answered me very distinctly with the same word I had used, and then turned to a small pan kept in the cage for him to drink from.

I repeated the word again and he placed the can near the front of the cage and came quite up to the bars and uttered the word. I had not shown him any milk or anything of the kind. But the man in charge then brought me some milk, which I gave to him, and he drank it with great zest, then looked at me, held up the pan and repeated the sound some three or four times. I gave him more milk and thus continued till I was quite sure he used the same sound each time he wanted milk.

EXTENDING THE VOCABULARY.

I next described to the friends who were with me a word which was very hard to render well, but I translated it "to eat." I now held a banana in front of the cage and he at once gave the word I had described. Repeated tests showed to me that he used the same word for apple, carrot, bread and banana, hence I concluded it meant "food," or "hunger," as also "to eat."

After this I began on a word which I had interpreted "pain," or "sick," and with such result as made me feel quite sure I was not far from right. My next word was "weather," or "storm," and while the idea may seem far fetched, I felt fairly well sustained in my tests. For many other words I had a vague idea of a meaning, and still believe that I can verify them in the end.

I went next to the Cincinnati Garden. When the visitors had left the monkey house I approached the cage of a capuchin monkey, and found him crouched in the rear of his cage. I spoke to him in his own tongue, using the word which I had called "milk."

He rose, answered me with the same word, and came at once to the front of the cage. He looked at me as if in doubt, and I repeated the word; he did the same, and turned at once to a small pan in the cage, which he picked up and placed near the door at the side, and returned to me and uttered the word again. I asked the keeper for milk, which he did not have, however, but brought me some water.

ALSO MEANT WATER.

The efforts of my little simian friend to secure the glass were very earnest, and the pleading manner and tone assured me of his extreme thirst. I allowed him to dip his hand into the glass and he would suck his fingers and reach again. I kept the glass from reach of his hand and he would repeat the sound and beg for more. I was thus convinced that the word I had translated "milk" must also mean "water," and from this and other tests I at last determined that it meant also "drink" and probably "thirst."

I have never seen a capuchin monkey that did not use these two words. The sounds are very soft and not unlike a flute; very difficult to imitate and quite impossible to write. They are purely vocal, except faint traces of "h" or "wh" as in the word "who"; a very feeble "w"; and here and there a slight guttural "ch."

To imitate the word which I interpret "food," fix the mouth as if to whistle; draw the tongue far back into the mouth, and try to utter the word "who" by blowing. The pitch of sound is a trifle higher than the cooing of a pigeon, and not wholly unlike it.

The phonics appear to me to be "wh-u-w," with the consonant elements so faint as to be almost imaginary.

In music the tone is F sharp, and this seems to be the vocal pitch of the entire species, though they have a wide range of voice.

The sound which I have translated "drink" or "thirst" is nearly uttered by relaxing and parting the lips and placing the tongue as it is found in ending the German word "ich," and in this position try to utter "ch-e-u-w," making the "ch" like "k," blending the "e" and "u" like "slurred" notes in music and suppressing the "w" as in the first case. The consonant elements can barely be detected, and the tone is about an octave higher than the word used for "food."

THE "CRY OF ALARM."

Another sound I suspected was a "menace" or "cry of alarm," but I was unable to utter it, except with the phonograph, but during February I had access to a fine specimen of the capuchin in Charleston, S. C. On my first visit to him I found him very gentle, and we at once became friends. He ate from my hands and seemed to regard me very kindly. The next day, while feeding him, [illegible] peculiar sound, "alarm," whereupon he sprang at once to his perch in the top of his cage, and as I continued the sound he seemed almost frantic with fright.

I could not tempt him by any means to come down. I then retired some twenty feet from the cage, and his master (of whom he is very fond) induced him to come down from the perch, and while he was fondling him I gave the alarm from where I stood. He jumped again to his perch and nothing would induce him to leave it while I remained in sight.

The next day, on my approach, he fled to his perch and I could not induce him on any terms to return. It is now some time since I began my visits, and I have never, since his fright, induced him to accept anything from me, and only with great patience can I get him to leave his perch at all, although I have not repeated this peculiar sound since my third visit, nor can I again elicit a reply from him when I say his word for "food" or "drink."

This sound may be closely imitated by placing the back of the hand very gently to the mouth and kissing it, drawing in the air, and producing a shrill, whistling scund, prolonged and slightly circumflexed.

MADE WITH VOCAL ORGANS.

Its pitch is the highest F sharp on the piano. It is not whistled, however, by a monkey, but is made with the vocal organs. While this is the highest vocal pitch of a capuchin, there are other sounds more difficult to imitate or describe. It must be remembered that an attempt to spell a sound which is almost an absolute vowel can at best convey only a very imperfect idea of the true sounds or the manner of uttering them.

So far as I have seen, the capuchin is the Caucasian of the monkey race. The chimpanzee has a strong but monotonous voice, confined to a small range of sounds, but affords a fine study while in the act of talking. I have not gone far enough with him as yet to give much detail of his language. There are only three in America now, and they talk but little and are hard to record.

I have recorded but one sound made by a sooty monkey, three by a mandril, five by a white-faced sapajou and a few of less value. But from the best proof I have found I have arrived, as I believe, at some strange facts which I shall here state.

ALL CHORD WITH F SHARP.

1. The Simian tongue has about eight or nine sounds, which may be changed by modulation into three or four times that number.

2. They seem to be half way between a whistle and a pure vocal sound and have a range of four octaves, and so far as I have tried they all chord with F sharp on a piano.

3. The sound used most is very much like "u" "oo" in shoot. The next one something like "e" in "be." So far I find no a, i or o.

4. Faint traces of consonant sounds can be found in words of low pitch, but they are few and quite feeble; but I have had cause to believe that they develop in a small degree by a change of environment.

5. The present state of their speech has been reached by development from a lower form.

THEY HUSBAND THEIR WORDS.

6. They use their lips in talking in very much the same way that men do, but seldom speak when alone or when not necessary.

7. I think their speech, compared to their physical, mental and social state, is in about the same condition as that of man by the same standards.

8. The more fixed and pronounced the social and gregarious instincts are in any species, the higher the type of its speech.

9. Simians reason from cause to effect, and their reasoning differs from that of man in degree, but not in kind.

If we compare the tongue of civilized races with those of the savage tribes of Africa which are confined to a few score of words, we gain some idea of the growth of language within the limits of our own genius. The few wants and simple modes of life in such a state account for this paucity of words, and this small range of sound gives but little scope for vocal development, and hence their difficulty in learning to speak the tongues of civilized men.

This is doubtless the reason why the negroes of the United States, after a sojourn of two hundred years with the white race, are unable to utter the sounds of "th," "thr" and other double consonants, the former of which they pronounce "d" if breathing and "t" if aspirate, the latter like "trw."

The sage of science finds the fossil rays of light still shining in the chamber of sleeping epochs, and by their aid he reads the legends on the guide post of time, but the echoes of time are lost and its lips are dumb; hence our search for the first voice of speech must come within the brief era of man. But if his prototype survives does not his parent speech survive?

If the races of mankind may be the progeny of the Simian stock, may not their language be the progeny of the Simian tongue? R. L. GARNER.

Eugene Field's Poached Eggs.

Detroit Free Press.

Mr. Eugene Field has two boys who are almost, if not quite, as irrepressible as their gifted father. One day Mr. Field brought home an armful of eggs and said that these were what his appetite craved for dinner. Then, while dinner was being made ready, the poet read the Bering Sea debates, his youngest son, Daisy (so called because that is nothing like his name), looking over his father's shoulder and spelling out the words.

"Papa," said the lad after awhile, "what does p-o-a-c-h. spell?"

"Posch, my son."

"And what does it mean?"

"Why, to poach is to steal," said the father, not wishing to bring confusion to his son with a strict and complicated definition.

Then Daisy went into the kitchen and watched the process of getting dinner.

Before the meal was ready some unexpected guests arrived, but would not listen to Mr. Field's pressing invitation to join the family at dinner. Finally Daisy added the force of his invitation to that of his father's.

"You'd better come," said he; "we're goin' to have eggs—stolen eggs—papa stole 'em."

Multum in Parvo.

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